

JBR Environmental Consultants, Inc.

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RECEIVED

October 17, 2013

Reed Miner Montana Dept of Environmental Quality P.O. Box 200901 Helena, MT 59620-0901

OCT 21 2013

Department of Environmental Quality Kalispell Regional Office

Re: Abbreviated Corrective Action Plan and Budget for Glacier Park Lodge Service Station, Montana Highway 49 North, East Glacier Park, Montana, Facility ID 18-09489, Release 2892, Work Plan 7424.

On behalf of Glacier Park Inc., JBR Environmental Consultants, Inc. (JBR) is submitting this work plan for corrective action to further address the petroleum release at the Glacier Park Lodge Service Station in East Glacier Park, Montana. JBR has prepared this plan in response to the Montana Department of Environmental Quality's request letter dated October 8, 2013.

Contact personnel for this project are:

Responsible Party:

Lisa Wyrick Glacier Park, Incorporated P.O. Box 147 East Glacier, MT 59434

Phone: 406-226-5528

Consultant:

Robert Griffin JBR Environmental Consultants 121002 Browns Gulch Road Butte, MT 59701

Phone: 406-723-7980

The purpose of this additional work is to further investigate petroleum impact to soil and groundwater at this facility. Specific objectives of the investigation described herein are:

- Replacement of a previously destroyed monitoring well (MW-6) with a 1" diameter monitoring well using a truck-mounted Geoprobe[®].
- Investigation of a potential source area on the west side of the property. This will include conducting a small excavation to determine whether or not an old fuel tank is still present on the west side of the previously removed pump islands' location. Previous work has identified, through magnetic locating, a possible old fuel tank in this area.

- Investigation of a water and sewer line corridor that passes through an area of known contamination. This will entail collection of soil core samples using a truck-mounted Geoprobe® at up to four locations along the length of the utility corridor, between the street hookup and the old service station building.
- Installation of one additional 1" monitoring well southwest of the old service station building.
- Collection of groundwater samples from the two newly installed monitoring wells, and from existing monitoring wells MW-3, MW-4, MW-7, and MW-8.
- Preparation of a final report to provide details on extent and magnitude of the contamination and present recommendations for remediation, if necessary.

FIELD ACTIVITIES

JBR will contact the Blackfeet Indian Tero Office to register the project and obtain Blackfeet Tribal work permits.

Prior to commencing field work, JBR will develop a Site-Specific Health & Safety Plan for the investigation and monitoring activities.

The One-call underground utility locate service will be contacted to identify the utilities in the vicinity of the soil boring and excavation activities.

Investigation of Potential Source Area

During previous site work to locate a monitoring well, a magnetic underground locator indicated that an unidentified metallic object, with an approximate 12 foot diameter foot print was located on the west side of this facility. This is in an area where previous investigation activities had identified free product on groundwater.

JBR is proposing to conduct a small excavation in this area to identify the source of the magnetic detection. JBR suspects, based on interview of local residents, that there is an old tank or possibly an old rail treating vat in this area.

In the event that a fuel tank is located, JBR will contact MDEQ to initiate proper removal and disposal.

If contaminated soils are encountered during excavation, they will be stockpiled on-site and covered with visqueen until disposal options are identified and approved. The open excavation will be enclosed with orange safety fence until further remedial activities are completed. If contaminated soils are not encountered, the open excavation will be backfilled with the excavated material.

Investigation of Utility Corridor

Using JBR's truck mounted Geoprobe[®], soil boring will be conducted along the utility corridor at up to four locations as shown in the attached Figure 1. Previous information on this site has

indicated that the water line is encased within a concrete conduit. Therefore, JBR proposes to conduct soil boring directly along the sides of the concrete conduit. Continuous soil cores will be collected from ground surface to approximately 2 feet below the bottom of the concrete conduit. Soil will be visually inspected for indications of staining, and odors will be noted. Soil samples from the soil cores will be field screened for the presence of organic vapors using a photoionization detector (PID). Soil will be placed in a plastic bag, sealed, shaken for 15 seconds, and allowed to set while vapor concentrations develop. The bag will then be again shaken and the PID probe inserted. The highest PID reading observed for each sample will be recorded.

Based on field observations and PID readings, one soil sample will be collected from each soil boring from the depth showing the highest organic vapor concentration. One additional soil sample will be collected from the furthest south western boring, (identified as SB-1 on the drawing) at the point where the utility lines cross the property line. These samples will be submitted to Energy Laboratories for Volatile Petroleum Hydrocarbons (VPH) and screened for Extractable Petroleum Hydrocarbons (EPH). If EPH screening concentrations exceed 200 mg/kg, the sample will be fractionated per MDEQ guidelines.

Additionally, if water is encountered in these borings, one water sample will also be collected at the SB-1 location. This sample will also be analyzed for VPH and EPH screen with fractionation if necessary.

JBR intends to conduct the utility corridor sampling along on-site sections of the conduits only. The south western most extent of sampling will be conducted up to the point where the utility corridor crosses into the street. If soil sampling results indicate that the contamination is following a utility corridor beyond the facility boundary, additional investigation work may be required and will be further discussed with MDEQ before additional work is conducted.

Monitoring Well Installation

JBR proposes to install a new monitoring well in the area where MW-6 previously was located. Using JBR's Geoprobe® rig, continuous soil core samples will be collected and field analyzed with the PID to a total depth of 15 feet below ground surface. The soil sample with the highest PID reading will be submitted to the laboratory for VPH analysis and EPH screening, and potential EPH fractionation. After the soil coring is completed, a monitoring well will be installed in the bore hole. Based on previous groundwater elevation data, JBR proposes to install 10 feet of factory pre-packed 1" OD PVC screen with 5 feet of solid 1" OD PVC casing. The annulus of the well will be filled with 10/20 silica sand to approximately 1 foot above the pre-pack screen, and then filled to surface with a bentonite seal. The well will be capped with a PVC slip cap, and completed with a protective flush mount manhole embedded in concrete.

In recent conversation between JBR and MDEQs case manager, it was determined that an additional monitoring well should be installed in a location south of previously removed fuel islands. This was to help provide better definition of the contaminant plume. Therefore, JBR is also proposing to install the second new monitoring well in a location as shown on Figure 1. This monitoring well will be installed in the same manner as the first well.

After these monitoring wells are installed, they will be developed to remove fine materials and sediments which may have entered the well during construction. The elevation and location of each of the new monitoring wells will be surveyed relative to the existing monitoring wells by JBR's field crew. JBR is not proposing the use the services of a licensed land surveyor for this task.

Water Sampling

Prior to sampling, depth to water will be measured in all existing and new monitoring wells and piezometers using an oil/water indicator probe. Groundwater levels will be measured to the nearest 0.01-foot and referenced to the established well elevation data.

Groundwater samples will be collected from the two new wells (MW-6A, and MW-9), and from four existing wells (MW-3, MW-5, MW-7, and MW-8) using a peristaltic pump. During presample purging, field parameters (pH, specific conductance, water temperature, and dissolved oxygen) will be measured. Well purging will be considered complete when at least three consecutive readings of the field parameters have stabilized to within 10% of the last measurement. A field measurement of the oxidation-reduction potential will also be made.

Groundwater samples will be collected from each well in laboratory supplied containers, preserve, packed in ice, and submitted, following standard Chain of Custody protocol, to Energy Laboratories for VPH analysis and EPH screening. If EPH screening levels exceed 1000 μ g/l on any water sample, additional fractionation of the sample will be conducted.

Reporting

After completing the above field work, and after receiving laboratory analytical results, JBR will contact MDEQ's case manager to discuss additional work requirements. If additional work is required to complete delineation of the contaminant plume, changes or additions to the above work will be requested along with a Form 8 budget modification.

As per MDEQ's request letter, a formal report will not be completed until all work, including any Form 8 changes, are completed.

At the completion of all field work, and any Form 8 tasks, JBR will prepare a Standardized Additional Remedial Investigation Report (RIR-02).

SCHEDULE

Following approval of this work plan by the MDEQ, we anticipate that field work to conduct the well installation, sampling, and excavation can be conducted in early December of 2013. The schedule for additional field work, if required, will be negotiated amongst the client, MDEQ, and JBR after the initial field work is completed. A final report will be prepared and submitted after all field activities have been completed and all laboratory analytical results are received.

COST ESTIMATE

The budget for this project is \$ 20,457.24, based on the above-specified scope of work. The attached cost estimate detail provides further breakdown of the costs.

JBR;s proposed scope of services is consistent with good and customary practices in the area which they are conducted in an effort to evaluate environmental conditions at a site. If you have questions regarding the contents of this work plan, please give us a call.

Respectfully Submitted JBR Environmental Consultants, Inc.

Robert C. Griffin

Senior Environmental Specialist

cc: Lisa Wyrick, Glacier Park, Inc.

Montana Petroleum Tank Release Compensation Board

TASK DESCRIPTION:	PF	RICE/UNIT	UNITS	QUANTITY		PRICE
Project Management	•	400.00		•	•	00400
- Preparation of Additional Corrective Action Work Plan	\$	103.00	hrs	8	\$	824.00
 Project Coordination and Scheduling, Health & Safety Plan, Correspondence with Blackfeet Tero Office, Correspondence 						
with Blackfeet Environmental Office,	\$	103.00	hrs	20	æ	2,060.00
with blackleet Environmental Office,	Ψ		roject Mgm	20 t Subtotal:	\$ \$	2,884.00
Mobilization and Travel			ojeet mgm	t Gabtotar.	Ψ	2,004.00
- Mobilization, RT from Butte (Probe + Operator)	\$	2.65	mile	498	\$	1,319.70
- Mobilization, RT from Butte (Decon Trailer and Equipment)	\$	0.21	mile	498	\$	104.58
- Mobilization, RT from Butte (project manager)	\$	103.00	hr	8.5	\$	875.50
- Tech III equipment prep and loadout	\$	81.00	hr	2	\$	162.00
- Meals	\$	23.00	man/day	10	\$	230.00
- Lodging (at cost)	\$	90.00	man/day	8	\$	720.00
	····		Mob/Trave			3,411.78
Field Work:						
pre construction safety meeting and utility confirmation						
(Project manager and Tech III)	\$	103.00	hr	1	\$	103.00
	\$	81.00	hr	1	\$	81.00
Utility Corridor Sampling						
- 4 Geoprobe borings with soil sampling for utility corridor						
investigation (Geoprobe + 2 person crew) includes decon	\$	213.00	hr	5	\$	1,065.00
- Macro Core Liners	\$	5.00	hr	16	\$	80.00
- Bentonite Granular 50# bag	\$	10.20	bag	2	\$	20.40
- Project Manager/Scientist: sample field analysis, lab				_	_	
sample collection	\$	103.00	hr	2	\$	206.00
Monitoring Woll Installation						
Monitoring Well Installation - 2 Geoprobe borings with well installation (Geoprobe + 2						
person crew; soil boring, well installation, well completion)	œ	213.00	br	2	æ	620.00
- Macro Core Liners	\$ \$	5.00	hr hr	3 8	\$ \$	639.00 40.00
- Well Supplies (prepac screen, casing, cap, cover, sand,	Φ	3.00	111	0	Φ	40.00
bentonite)	\$	290.03	per well	2	\$	580.06
Dornor moy	Ψ	230.00	per well	2	Ψ	300.00
- Well Development (Tech III)	\$	81.00	hr	2	\$	162.00
- Project Manager/Scientist: soil sample field analysis, lab	Ψ	01.00	• • •	-	Ψ	102.00
sample collection	\$	103.00	hr	2	\$	206.00
·	•				•	
- Well Survey (in house Tech III and Project Manager)	\$	184.00	hr	2	\$	368.00
Suspect Source Area Investigation						
- Backhoe and operator, includes equipment, labor, and						
mobilization required to excavate to investigate the suspect			•	,		
source area on the west side of the facility. (Circle R Services).			• • • • • • • • • • • • • • • • • • • •			
Contractor is Tero Certified. Does not include new fill material		5 .		,		
or additional excavation to remove contaminated soils.	\$:	2,300.00	est	1	\$	2,300.00
- 7% subcontractor markup	\$	2,300.00 161.00	6 21	1	Ф \$	161.00
- Project Manager/Scientist: excavation oversite and	Ψ	101.00	•	1 -	ψ	101.00
documentation	\$	103.00	hr	5	\$	515.00
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Groundwater Sampling								
- groundwater Water Level Measurements only - Groundwater Monitoring / sampling: includes level	\$	38.00	well	6	\$	228.00		
measurements, purging, stabilizing and measuring field parameters, sampling	\$	159.00	well	6	\$	954.00		
			Field Work	c Subtotal:	\$	6,526.46		
Analtycial								
- VPH Soil	\$	120.00	well	7	\$	840.00		
- EPH Soil screen	\$	75.00	well	7	\$	525.00		
- Fractions (estimated)	\$	150.00	well	7	\$	1,050.00		
-VPH Water	\$	120.00	well	7	\$	840.00		
- EPH Water screen	\$	75.00	well	7	\$	525.00		
- Fractions (estimated)	\$	150.00	well	7	\$	1,050.00		
- sample handling fees	\$	10.00	well	11	\$	110.00		
	[Laborator	y Analytical	Subtotal:	\$	4,940.00		
Reporting								
- RIR-02 Report	\$	2,620.00	report	1	\$	2,620.00		
			Reporting	Subtotal:	\$	2,620.00		
Other								
- Non-Native Blackfeet Work Permits (required for each								
individual) one week permit @ \$25.00/person	\$	25.00	per worker	3	\$	75.00		
		·····	Reporting	Subtotal	\$	75.00		
			reporting	Subtotal:	Φ	7 3.00		
Total Project Estimated Cost						\$ 20,457.24		

